Call for Projects
Project Information Form (PIF)

A. PROJECT INFORMATION

1. Project Title: Morro Bay IPR Project
2. Project Sponsor(s): City of Morro Bay
3. Eligible Applicant Type: Public Utility
4. IRWM Project Region(s): San Luis Obispo County
5. Does the project provide benefits directly to a Disadvantaged Communities (DAC) and/or Economically Distressed Areas (EDA) (minimum 75% by population or geography)?
   ☐ Yes ☑ No If yes, please complete D.8 and/or D.9. Show on map if applicable.
6. Is the Project Sponsor a Tribe, or does the project provide benefits to a Tribe (minimum 75% by population or geography) as defined by Proposition 1?
   ☐ Yes ☑ No If yes, please complete D.10. Show on map if applicable.
7. Provide project map. Include location of project, project benefit and/or service area, and other applicable information.
8. Funding Category:
   ☐ DAC Implementation Project
   ☑ General Implementation Project
9. Project Type: Water reuse Other:
   Select most applicable project type. See Section II.C. of the 2019 Guidelines for full description of eligible project types. If "Other" is selected, please write in the space provided the proposed project type.

B. SELECTED ELIGIBILITY REQUIREMENTS

1. Will the project be included in the IRWM Plan, that will be adopted prior to anticipated Agreement Execution?
   ☑ Yes ☐ No
2. Does the project address a critical need(s) and/or priority(ies) of the IRWM Region as identified in the IRWM Plan?
   ☑ Yes ☐ No If yes, complete part a:

a. What IRWM Plan goal(s)/objective(s) does the project address? Identify and explain.

Complete additional worksheet, titled "Objectives and Climate Change Worksheet"

3. Does the project have an expected useful life consistent with Government Code §16727 (generally 15 years)? If not, explain why this requirement is not applicable.

Yes - The Morro Bay Water Reclamation Facility (WRF) Project and Indirect Potable Reuse (IPR) facilities have an anticipation useful life of thirty years and beyond. Financing obtained for the project from the Water Infrastructure Finance and Innovation Act (WIFIA) and the State of California State Revolving Fund (SRF) have terms of 30 years and a requirement that the projects have a similar if not longer expected useful life.

4. Does the project address and/or adapt to the effects of climate change? Does the project address the climate change vulnerabilities assessed in the IRWM Plan?

☑ Yes ☐ No If yes, please explain below.

Complete additional worksheet, titled "Objectives and Climate Change Worksheet"

5. Does the project contribute to regional water self-reliance?

☑ Yes ☐ No If yes, please explain below.

The WRF Project will allow the City to reduce its reliance on imported State Water Project (SWP) Water and more reliably utlize its local supplies. Currently, the City has rights to pump water from the Morro Groundwater Basin (Morro Basin), however, historically during periods of drought and increased pumping the Morro Basin has been degraded by seawater intrusion. Additionally, the Morro Basin is contaminated with nitrates and current concentrations require the City to treat the water prior to distributing to the City's potable water system. The IPR component of the WRF Project will increase recharge to the basin, prevent seawater intrusion, improve the water quality, reduce/eliminate the need for nitrate treatment and allow the City to more reliably utilize this critical, local groundwater supply and reduce its reliance on imported SWP supplies. With reduced reliance on its imported supplies, the City will have increased flexibility to make these supplies available to other water utilities locally, regionally and statewide. Initial estimate indicate that with IPR the City could make available an average of 500 - 1,000 AFY of imported SWP water available to other water utilities.

6. Does the project provide a benefit that meets at least one of the Statewide Priorities as defined in the 2019 IRWM Grant Program Guidelines?

☑ Yes ☐ No If yes, please identify below.

5. Manage and Prepare for Dry Periods

7. Will CEQA be completed within 12 months of Final Award?

☑ Yes
☐ NA, project is exempt under CEQA
☐ NA, not a project under CEQA
☐ NA, project benefits DAC/EDA/Tribe (minimum 75%), or a Tribe is a local project sponsor
☐ No

8. Will all permits necessary to begin construction be acquired within 12 months of Final Award?

☑ Yes
☐ NA, project benefits DAC/EDA/Tribe (minimum 75%), or a Tribe is a local project sponsor
☐ No

C. WORK PLAN, BUDGET, and SCHEDULE SUMMARY

1. Project Description: Provide a brief project description summarizing major components, objectives, goals, and intended outcomes/benefits (quantitative and qualitative).

To develop a more reliable and resilient water supply portfolio, the City is constructing a Water Reclamation Facility (WRF) which incorporates advanced treatment for indirect potable reuse (IPR). The WRF Project is being constructed as three separate components:
WRF - a new wastewater treatment or water reclamation facility, including Full Advanced Treatment (i.e. membrane filtration, reverse osmosis, and ultraviolet/advanced oxidation treatment processes), located outside of the flood plain and tsunami inundation zones
Conveyance - pipelines and pump stations to convey wastewater to the WRF, treated effluent to the City's existing ocean outfall and advanced purified water to the IPR facilities
IPR - injection wells and recycled water pipelines to recharge the Morro groundwater basin (Morro Basin) with advanced purified water.

The WRF and Conveyance facilities are scheduled to be completed in Fall of 2022 and the IPR facilities are anticipated to be completed by Spring 2025. The WRF's IPR facilities will have the capacity to produce up to 825 acre-feet per year (AFY) of advanced purified recycled water, which will be injected into the Morro Basin. By augmenting recharge in the Morro Basin, the City will protect the basin water quality (from seawater intrusion and nitrate contamination) and be able to extract up to 80 percent of their average water demands or approximately 880 AFY when imported SWP water supplies are limited and/or unavailable. This project provides the City with a new, reliable and drought resilient water supply source, thereby diversifying the City's water portfolio and providing the necessary protection against climate change drought impacts, natural disasters and infrastructure failures.

The scope of the project that is being submitted for funding under the Prop 1 Round 2 Intergrated Regional Water Management (IRWM) Implementation Grant includes the IPR component (i.e. injection wells and recycled water conveyance pipelines) of the overall WRF Program.

2. Budget: Provide cost estimates for each Budget Category listed in the table below. (Required for Pre-Application Material Submittal; not required for Final Application Submittal)

Table 1 - Project Budget

Category		(a) Cost Share: Non-State Fund Source	(b) Requested Grant Amount	(c) Other Cost Share (including other State Sources)	(d) Total Cost
(a)	Project Administration	214180.1126	91791.47684	0	305971.5895
(b)	Land Purchase/ Easement	0	0	0	0
(c)	Planning/Design /Engineering /Environmental Documentation	1927621.014	826123.2915	0	2753744.305
(d)	Construction/ Implementation	3955000	1695000	0	5650000
(e)	Grand Total (Sum rows (a) through (d) for each	6096801.126	2612914.768	0	8709715.895

Note: Provide information or other documentation to support the cost estimate in a separate attachment. Identify the source of all cost share and other funds. If other funds are not used, describe efforts to obtain other funding and/or why other funding sources were not used.

The grant funding request provided in the table above, represents 30% of anticipated costs for the IPR component of the WRF Project. The City understands that there are numerous needs for IRWM funding and limited grant funding available and appreciates Regional Water Management Group's consideration of this request.

To fund the WRF Project, the City obtained financing for the WRF project from the Water Infrastructure Finance and Innovation Act (WIFIA) and the State of California State Revolving Fund (SRF), received CWRF Grant Funding, applied for Title XVI and DWR Urban and Multibenefit Drought

3. Cost Share Waiver Requested (DAC or EDA)? Yes ☐ No ☑ If yes, continue below:
   Cost Share Waiver Justification: Describe what percentage of the proposed project area encompasses a DAC/EDA, how the community meets the definition of a DAC/EDA, and the need of the DAC/EDA that the project addresses. In order to receive a cost share waiver, the applicant must demonstrate that the project will provide benefits (minimum 25% by population or geography) that address a need of a DAC and/or EDA.

<Approximately 250 words>

4. Schedule: Include reasonable estimates of the start and end dates for each Budget Category listed in Table 1 - Project Budget. (Required for Pre-Application Material Submittal; not required for Final Application Submittal)

Table 2 - Project Schedule

Category		(a) Start Date	(b) End Date
(a)	Direct Project Administration	5/16/2017	4/1/2025
(b)	Land Purchase/Easement	5/16/2017	3/31/2022
(c)	Planning/Design/Engineering/Environmental Documentation	5/16/2017	4/1/2025
(d)	Construction/Implementation	11/10/2023	10/10/2024

D. OTHER PROJECT INFORMATION

1. Provide a narrative for project justification. If applicable, include references to supporting documentation such as models, studies, engineering reports, etc. Include any other information that supports the justification for this

project, including how the project can achieve the claimed level of benefits.

The City of Morro Bay's primary source of water supply (up to 90%) is the State Water Project (SWP). Since the late 1990s, SWP water has been a critical component of the City's water supply portfolio. However, recent droughts have highlighted vulnerabilities of this water supply source. SWP availability is highly variable with annual allocations ranging from 5 to 100%. Recent multi-year drought periods and associated reduced SWP allocations have placed the City in a vulnerable position for being able to reliably supply water. Additionally, delivery of the SWP water to the City's water system relies upon hundreds of miles of canals, aqueducts and pipelines that are potentially vulnerable to levee failure, subsidence, earthquakes and mechanical failures. In the event of catastrophic failure of the SWP system and without an alternative water supply, the City would be forced to make drastic reductions in the amount of water available to its customers.

To identify a more reliable, drought tolerant water supply to meet the City's future (2050) water needs, the City completed its OneWater Plan in 2018. The OneWater Plan included a comprehensive evaluation of the City's water, wastewater and stormwater systems and analysis of 13 different potential water supply alternatives, including: ocean desalination; use of the Chorro and Morro well fields with and without treatment; direct potable reuse; and indirect potable reuse (IPR). The OneWater Plan, which can be accessed at https://www.morro-bay.ca.us/DocumentCenter/View/12500/OneWater-Plan-Final, recommended the implementation of IPR via groundwater injection as the most effective project for meeting the City's future water supply needs.

Since initiating the Water Reclamation Facility (WRF) Project, the City has completed multiple hydrogeologic studies, that can be accessed at https://morrobaywrf.com/documents/, which evaluate the benefits that IPR will provide to the Morro Basin and the City's water supply portfolio. The WRF will have a capacity to provide up to 825 acre-feet per year (AFY) of highly purified recycled water, which will be injected into the Morro Groundwater Basin (Morro Basin) to increase recharge and create a barrier against seawater intrusion. By augmenting recharge in the Morro Basin with highly purified recycled water, hydrogeologic studies indicate the City will be able to extract up to approximately 880 AFY or 80 percent of its average potable water demands without the threat of seawater intrusion.

Injecting purified water will not only increase the amount of groundwater available for extraction in the Morro Basin, but will also improve groundwater quality. The basin currently has nitrate levels exceeding the primary drinking water Maximum Contaminant Level (MCL). Hydrogeologic studies have predicted that the injection of the purified recycled water will reduce nitrate concentrations in the aquifer and reduce/eliminate the City's need to utilize its reverse osmosis treatment facility.

The WRF Project, specifically the IPR process, creates a new sustainable, drought resistant water supply that will be available to the City regardless of future hydrologic conditions, including climate change, and enables the City to improve the resiliency of its water supply portfolio to mitigate against future droughts and SWP infrastructure failures. Having this local, resilient supply will provide water security for the City, reduce its reliance on Sacramento-San Joaquin Delta imports, improve local groundwater quality, and increase the City's ability to provide water to other

2. Project Benefits Table:

Table 3 - Project Benefits			
Anticipated Useful Life of Project (years):	**30**		
Primary (Required)			
Type of Benefit Claimed:	Groundwater Recharge	**Benefit Units*:**	AFY
Secondary (Optional)			
Type of Benefit Claimed:	Water Quality - Groundwater	**Benefit Units*:**	mg/L

Physical Benefits (At project completion or lifetime, as appropriate)		
(a)	(b)	(c)
Benefit	**Added Physical Benefit Description**	**Quantitative Benefit**
Primary	Production of up the 825 AFY of advanced purified water for groundwater injection and recharge for the Morro Basin	825
Secondary	Reduce concentrations of TDS and Nitrates in the Morro Basin	50%

Qualitative Benefits (For Decision Support Tools, please describe non-physical benefits.)

Comments: [Include narrative on additional benefits, as warranted.]

Injection of 825 AFY of advanced purified water will allow the City to reliably extract 880 AFY of groundwater from the Morro Basin (Lower Morro Valley Basin Screening-Level Groundwater Modeling for Injection Feasbility, GSI 2017). This local, drought resistant, resilient supply will provide the City with water in the event of a long term drought or infrastructure failure that impacts the ability to receive water through the SWP . Additionally, injection of advanced purified water into the Basin is anticipated to reduce TDS and Nitrate concentrations by approximately 50% (Characterization and Selection of Project Area for Injection Test, GSI 2019). The hydrogeologic studies that these findings are based off of are located here https://morrobaywrf.com/documents/. Both the amount of advanced purified water injected and the reduction in TDS and nitrate concentrations in the Morro Basin can tracked and quantified to demonstrate the effectiveness of WRF Project and IPR operations.

* DWR may require applicant to convert or modify Benefit Claimed and/or Benefit Units. Where applicable, select one of the following units that corresponds to the benefit claimed:

- For water supply produced, saved, or recycled, enter acre-feet per year (AFY)
- For water quality, enter constituent concentration reduced in mg/L
- For flood damage reduction, enter inundated acres reduced in acres
- For habitat improved, restored or protected, enter habitat restored in acres
- For fishery benefits, enter increased fishery flow rate in cubic feet per second (cfs)
- For species protection, enter number of species benefited

3. Does the proposed project provide benefits to multiple IRWM regions [or funding areas]? If the project is located in another funding area, please provide the information requested in the 2019 Guidelines, Section 1.A.

☑ Yes ☐ No If yes, provide a description of the benefits to the various regions.

IPR will improve recharge and water supply available in the Morro Basin and reduce the City's reliance on its SWP supplies. This will provide the City with the flexiblity to make SWP water available for environmental demands and to other water utilities locally and throughout the State. Initial estimate indicate that with IPR the City could make available an average of 500 - 1,000 AFY of imported SWP water available to other water utilities.

4. Provide a narrative on cost considerations. For example, were other alternatives to achieve the same types and amounts of physical benefits as the proposed project evaluated? Provide a justification as to why the project was selected (e.g., if the proposed project is not the lowest cost alternative, why is it the preferred alternative? Are there any other advantages that the proposed project provides from a cost perspective?)

As part of the OneWater Plan, the City analyzed 13 different potential water supply alternatives, including: ocean desalination; use of the Chorro and Morro well fields with and without treatment; direct potable reuse; and indirect potable reuse (IPR). The analysis incorporated 9 different evaluation criteria, including capital, energy and O&M costs. Based on the results of the evaluation the City selected IPR in the Morro Basin as the recommended alternative based on the multi-parameter scoring and ranking of each of the alternatives. While not the lowest cost of all the alternatives evaluated, IPR received the highest overall score and provides the City with the most drought, other natural disaster and/or infrastructure failure resilient source of water supply.

5. a. Does the project address a contaminant listed in AB 1249?

☑ Yes ☐ No If yes, complete parts b and c:

b. Describe how the project helps address the contamination.

The WRF Project will provide for the injection of high quality advanced purified water into the Morro Basin. The Morro Basin has high concentrations of nitrate, greater than the Maximum Contaminant Level (MCL), requiring treatment prior to distribution to the potable water system. The advanced purified was produced at the WRF will be far below MCL and will reduce nitrate concentrations in the Morro Basin.

c. Does the project provide safe drinking water to a small disadvantaged community?

☐ Yes ☑ No If yes, provide an explanation on how the project benefits a small disadvantaged community as defined in the 2019 IRWM Guidelines.

<DAC with population less than 10,000 persons>

6. Does the project provide safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes (consistent with AB 685) to meet a specific need(s) of a community?
   ☑ Yes ☐ No If yes, please describe.

The WRF Project will provide potable water for the City's water distribution system. The City's current primary water supply source, the SWP, is highly vulnerable to extended drought and delivery interuptions due to natural disasters, infrastructure failures and maintenance shutdowns. The WRF Project will provide a drought resistent, resilient source of supply to help ensure that the City can continue to provide safe, clean, affordable and accessible water to its customers.

7. Does the project employ new or innovative technologies or practices, including decision support tools that support the integration of multiple jurisdictions, including, but not limited to, water supply, flood control, land use, and sanitation?
   ☑ Yes ☐ No If yes, please describe.

The WRF Project includes new and innovative treatment technology. The WRF Project includes Full Advanced Treatment to treat wastewater to drinking water quality and will be the first Indirect Potable Reuse (IPR) project that includes an Membrane Bioreactor (MBR) as part of the treatment processs. Incorporation of the MBR into the Advanced Treatment process allows the City to reduce the capital and O&M costs for the WRF Project and reduce the footprint of the treatment facility.

8. If the project provides benefits (75% by population or geography) to a DAC, explain the need of the DAC and how the project will address the described need. Explain how the area/community meets the definition of a DAC.

9. If the project provides benefits (75% by population or geography) to an EDA, explain the need of the EDA and how the project will address the described need. Explain how the area/community meets the definition of an EDA.

10. If the project provides benefits (75% by population or geography) to a Tribe or a Tribe is the sponsor of the project, explain the need of the Tribe and how the project will address the described need.

11. Does the project sponsor have legal access rights, easements, or other access capabilities to the property to implement the project?

- ☑ Yes — If yes, please describe.
- ☐ NA — If NA, please describe why physical access to a property is not needed.
- ☐ No — If no, please provide a clear and concise narrative with a schedule to obtain necessary access.

The City has obtained all the necessary legal access rights, easements and other access capabilities to the property to implement the WRF Project. In 2019, the City purchases an easement for the injection wells and associated recycled water pipelines.

E. ENVIRONMENTAL

1. Please fill out the CEQA Timeline Table below, if applicable:

Table 4 - CEQA Timeline		
CEQA STEP	COMPLETE? (y/n)	ESTIMATED DATE TO COMPLETE
Initial Study	Y	
Notice of Preparation	Y	
Draft EIR/MND/ND	Y	
Public Review	Y	
Final EIR/MND/ND	Y	
Adoption of Final EIR/MND/ND	Y	
Notice of Determination	Y	

a. If additional explanation or justification of the timeline is needed, please describe below (optional).

2. Permit Acquisition Plan:
   List all permits needed to complete the project. If the project does not provide benefits to a DAC, EDA, or Tribe (min 75%), all permits needed to begin construction must be acquired within 12 months of Final Award.

No.	Type of Permit	Permitting Agency	Date Acquired or Anticipated
1.	Coastal Development Permit	California Coastal Commission	11/8/2019
2.	Lake and Streambed Alteration Program	California Department of Fish and Wildlife	8/7/2023
3.	Enhanced Source Control and Pretreatment P	Regional Water Quality Control Board	12/31/2022
4.	Aquifer Storage and Recovery Permit	Regional Water Quality Control Board	Sep-21
5.	Potable Reuse Permit	Division of Drinking Water	11/9/2023
6.	Authorization to Start Construction	California State Historical Preservation	8/7/2023
n.	Authority to Construct/Permit to Operate	Air Pollution Control District	8/7/2023

For each permit not yet acquired, describe the following:

No.	a. Actions taken to date (include dates of any key meetings, consultations, submittals, etc.)	b. Any issues or obstacles that may delay acquisition of permit
1.		
2.	Ongoing meetings and consultation w/CDFW. Permits will be	
3.	Ongoing meetings and consultation with RWQCB and DDW.	
4.		
5.	Ongoing meetings and consultation with RWQCB and DDW.	
n.	Ongoing meetings and consultation with California State Hist	

3. Permitting Checklist: This checklist is provided as a courtesy for documentation purposes. Not all permits which may apply are listed. (Required for Pre-Application Material Submittal; not required for Final Application Submittal)

a. Does the project involve any activities that may affect federally or state listed threatened or endangered species or their critical habitat that are known, or have a potential, to occur on-site, in the surrounding area, or in the service area? (i.e. Federal Endangered Species Act Section 7 Consultation and Incidental Take Authorization and Section 10 Incidental Take Permit, California Endangered Species Act Permit, and/or ESA & CESA Consistency Determination)

☑ Yes ☐ No If yes, please explain:

The following animal species are listed as federally threatened or endangered in the vicinity of the Project area: California clapper rail, Morro Bay kangaroo rat, Steelhead, Western snowy plover, Morro shoulderband snail, Tidewater Goby, and California Red-Legged Frog (CRLF). The California clapper rail, Morro Bay kangaroo rat, Steelhead, and Western snowy plover are not expected to be affected by the project as their presence is not anticipated within the study area due to existing lack of habitat. The Morro shoulderband snail and Tidewater goby could potentially be present in the study area when surface water is present. It is unlikely for the Tidewater goby or CRLF to be present in or near the preferred WRF site or along the proposed pipeline alignment except at the Morro Creek crossing locations.

The recycled water facility pipeline from the WRF to the injection well site will be installed underground for the

b. Would the proposed project work in, over, or under navigable waters of the US or discharge dredged or fill material in waters of the US? (i.e. Rivers & Harbors Act Section 10 Permit and/or Clean Water Act Section 404 Permit)

☑ Yes ☐ No If yes, please explain:

Wetlands and riparian areas are located near the project construction areas and potentially could be impacted by the project, specifically during construction of the proposed recycled water injection wells. The project will follow the agency-adopted mitigation measures and conditions of the CWA Sections 401 Water Quality Certification and 404 Waters of the United States Nationwide Permit by implementing construction best management practices (BMPs), preparing a SWPPP in compliance with National Pollutant Discharge Elimination System (NPDES) General Construction

c. Will the proposed project have the potential to affect historical, archaeological, or cultural resources? (i.e. National Historic Preservation Act and/or State Historic Preservation Officer Consultation)

☑ Yes ☐ No If yes, please explain:

Several archaeological or historical resources are located within the Project area, specifically within or immediately adjacent to the conveyance pipelines and the recycled water injection and monitoring wells. Ground disturbance related to construction could potentially impact these resources directly, which would constitute a significant and unavoidable impact under CEQA and SHPO. However, mitigation and monitoring measures have been adopted and are currently being implemented during construction to reduce potential impacts to the degree feasible for the

d. Will the proposed project discharge into a water of the US? (i.e. Clean Water Act Section 401 and/or 404 Permit)

☑ Yes ☐ No If yes, please explain:

Wetlands and riparian areas are located near the project construction areas and potentially could be impacted by the project, specifically during construction of the proposed recycled water injection wells. The project will follow the agency-adopted mitigation measures and conditions of the CWA Sections 401 Water Quality Certification and 404 Waters of the United States Nationwide Permit by implementing construction best management practices (BMPs), preparing a SWPPP in compliance with National Pollutant Discharge Elimination System (NPDES) General Construction

e. Will the proposed project divert the natural flow of a river, stream, or lake? (i.e. Lake or Streambed Alteration Agreement)

☐ Yes ☑ No If yes, please explain:

f. Will the proposed project change the bed, channel, or bank of a river, stream, or lake? (i.e. Lake or Streambed Alteration Agreement)

☐ Yes ☑ No If yes, please explain:

g. Will the proposed project use any material from the bed, channel, or bank of a river, stream, or lake? (i.e. Lake or Streambed Alteration Agreement)

☐ Yes ☑ No If yes, please explain:

h. Will the proposed project deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake? (i.e. Lake or Streambed Alteration

☐ Yes ☑ No If yes, please explain:

i. For water supply projects, do you need to obtain a water right? (Water Rights Permit)

☐ Yes ☑ No If yes, please explain:

The City's current permit with the SWRCB allows for extraction of 581 AFY of water from the Morro Valley Basin. With the implementation of the WRF Project, it is envisioned that the City would be able to extract more than 581 AFY because the City would be injecting additional water into the groundwater basin that is not subject to the SWRCB permit extraction limits.

j. Is the proposed project within the defined coastal zone? (Coastal Development Permit)

☑ Yes ☐ No If yes, please explain:

The WRF Project and specifically the recycled water components are located in the coastal zone. In July 2019, the California Coastal Commission unanimously approved the coastal development permit for the project, citing that it would allow the City to retire its aging shoreline wastewater treatment plant and ensure that critical public infrastructure is no endangered by sea level rise.